

## A METHOD AND SYSTEM FOR ENFORCING CONSISTENT PER-PHYSICAL PAGE CACHEABILITY ATTRIBUTES

### ABSTRACT

5           A method and system for enforcing consistent per-physical page cacheability attributes is disclosed. The method for enforcing consistent per-physical page cacheability attributes maintains memory coherency within a processor addressing memory, such as by comparing a desired cacheability attribute of a physical page address in a PTE against an authoritative table that indicates the current cacheability  
10   status. This comparison can be made at the time the PTE is inserted into a TLB. When the comparison detects a mismatch between the desired cacheability attribute of the page and the page's current cacheability status, corrective action can be taken to transition the page into the desired cacheability state.